

# Hierarchies of Power in Online Discussion Fora

Dr Helen Newsome (h.newsome@aston.ac.uk)

Prof Tim Grant (t.d.grant@aston.ac.uk)

# Aim of Research:

To develop new ways of understanding and mapping the linguistic performance of power in anonymous online discussion fora.

### Previous work – Dr Ria Perkins:

Literature review of research on language and power identified a set of low-level linguistic features. These features were extracted using computational scripts. Features include:

- Hedges e.g. 'I think', 'It seemed like', 'sort of'
- Hesitation forms e.g. 'uh', 'um', 'well'
- Polite forms e.g. 'sir', 'please'
- Intensifiers e.g. 'very', 'definitely', 'surely'

Results: no clear correlation between these low-level features and power dimensions identified in the datatsets studied in this phase of the project.

Why? Many of the low-level linguistic features identified in the literature are multi-functional in nature which complicates results. Perkins also highlighted that power is not a binary concept but is multi-dimensional.

# **Current Project:**

Next stage of project – adopted a different approach - qualitative analysis using principles from CDA and pragmatics.

Analysed and manually tagged three corpora (all anonymous online discussion fora with varying degrees of anonymity):

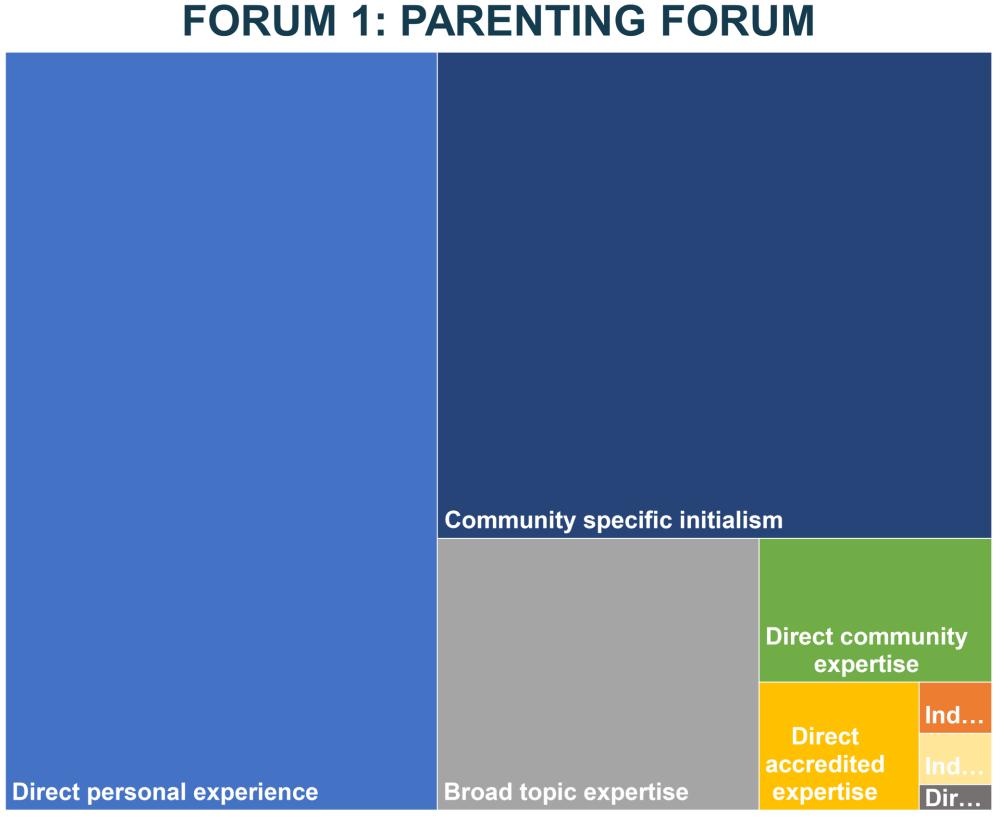
- Forum 1 (F1): Clear web, parenting forum, non-criminal.
- Forum 2 (F2): Clear web, white nationalist forum, some 'criminal' discussions.
- Forum 3 (F3): Dark Web, child abuse forum, all discussion criminal.

Total dataset = 160,000 words

Results: We found that individuals can draw upon different resources in the performance of power and that multiple hierarchies of power may coexist in an online fora.

#### Resources of Power: **Broad topic expertise** Topic expertise through personal experience\* **Community Expertise\*** Includes use of community specific initialisms I was involved with Bulgarian Nationalism for a long Morality is subjective and changes from culture to I informed SS [social services] as SW [social worker] culture. (F3) time. (F2) said that their legal term would take weeks (F1) Technological expertise\* **Accredited expertise\*** Veteran power Thankfully I've found TOR and truecrypt (F3) We have looked after quite a few [...] children over our I know two foster carers who take newborn babies. 33 years of fostering ... (F1) (F1-indirect) Possession of private knowledge Citing a secondary source for authority Subject of law enforcement activity\* Just so nobody gets worried, [User X] will be offline for 6 | As Voltaire said it is difficult to free fools from the chains I was arrested a few years ago for ... (F2) they revere. (F2) or 7 days. (F3) (\* indicates this can be 'direct' or 'indirect', where indirect expertise is a claim to knowledge of a person or situation which would be the basis of a direct claim.)

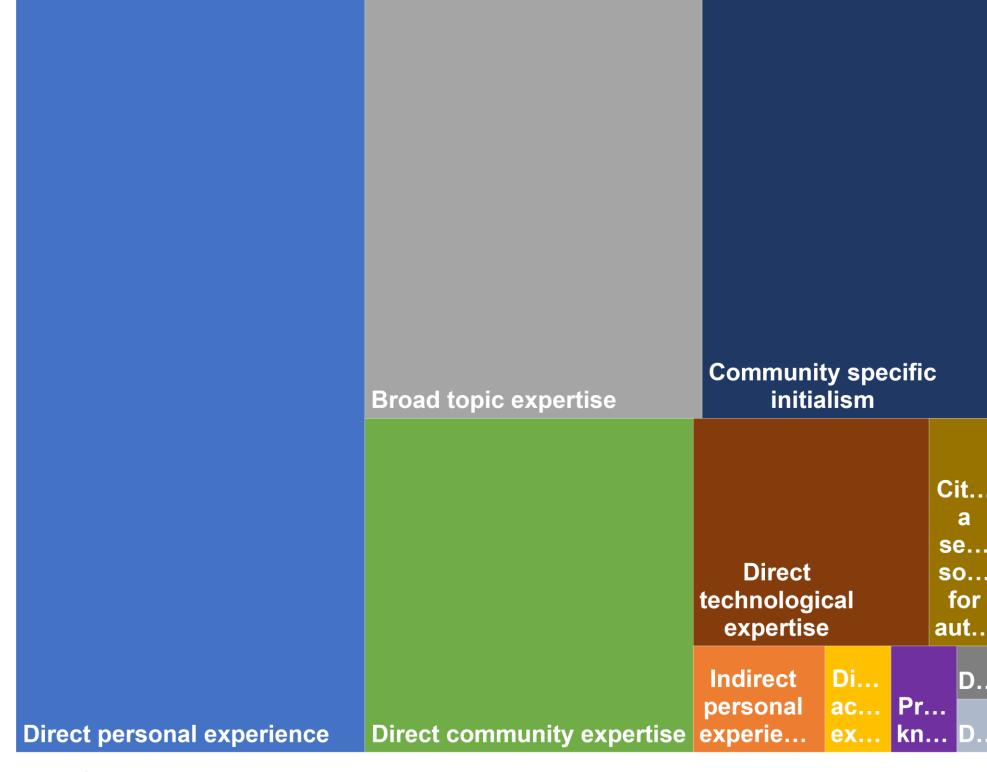
# **Cross-Community Distribution of Power Resources:**



### Community specific **Direct personal** initialism experience Direct community expertise Citing a Indirect Direct secondary perso. source for Dir... D. **Broad topic expertise** authority

FORUM 2: WHITE NATIONALIST FORUM

#### FORUM 3: DARK WEB CSEA FORUM



# **Hierarchies of Power in Individuals:**

Analysis of the claims of power made by individuals across the fora shows that hierarchies of power exist in which some users might be seen as **more powerful** than others.

In each forum, there exist **high-resource individuals** and **low-resource individuals**. Speculatively, access to power resources may be **constrained** by a user's history or by the topic or content of an interaction.

Furthermore, users might consistently display **idiosyncratic** use of power claims. This may be useful in authorship analyses.

<b>1</b>		Forum 1: Parenting	Forum 2: White Nationalist	Forum 3: DW CSEA
	Users who make no claims of power	1	3	2
	Users who make claim to 1 source of power	5	10	0
	Users who make claim to 2 sources of power	7	6	4
	Users who make claim to 3 sources of power	0	3	1
	Users who make claim to 4 sources of power	1	1	0

# Conclusions

- Claims to power differ between communities
  there's no one way of being powerful.
- High-resource individuals are rare.
- This resource model of power is a useful analytic tool with many potential applications.

#### What next?

- We are trying to automate tagging of forum texts so we can examine corpora at scale.
- We are planning to examine if there are any correlation between claims of power and individuals' communicative practices.